

# PEI TEMPALUX®

Tempalux® is a Registered Trademark of Westlake Plastics Co.

Tempalux is Westlake Plastics' family of Polyetherimide (PEI) materials. Tempalux is an amorphous material offering high dielectric strength, high strength and stiffness at elevated temperatures (up to 180°C for extended periods of time), high modulus, and broad chemical resistance. Tempalux has excellent dimensional stability (low creep and low CLTE) with good resistance to a broad range of chemicals such as automotive fluids, fully halogenated hydrocarbons, alcohols and aqueous solutions. Tempalux has inherent flame retardancy with low smoke generation, meeting ABD, FAR and NBS. Tempalux is FDA and EU compliant for food contacting applications.



The following physical property information is based on typical values of the colored resin.

Property	Units	Test Standard	Unfilled
<b>Mechanical</b>			
Tensile Strength			
@yield	psi	ASTM D638	16,000
@break	psi	ASTM D638	13,100
Tensile Modulus	psi	ASTM D638	520,000
Tensile Elongation			
@yield	%	ASTM D638	7.0
@break	%	ASTM D638	60.0
Flexural Strength @yield	psi	ASTM D790	24,000
Flexural Modulus	psi	ASTM D790	510,000
Izod Impact Strength			
Notched	ft-lbs/in	ASTM D256	25.0
Un-Notched	ft-lbs/in	ASTM D4812	1.0
Hardness	M Scale	ASTM D785	M109
<b>Thermal</b>			
Heat Deflection Temperature			
@66 psi	°F	ASTM D648	410
@264 psi	°F	ASTM D648	394
Coefficient of Thermal Expansion	in/in/°F	ASTM E831	3.1x10 <sup>-5</sup>
Flammability Rating	—	UL94	@0.118" 5VA @0.0295" V-0
Limiting Oxygen Index	%	ASTM D2863	47.0
<b>Electrical</b>			
Dielectric Strength 0.063" in oil	V/mil	ASTM D149	710
Dielectric Constant @1kHz	—	ASTM D150	3.15
Dissipation Factor @1kHz	—	ASTM D150	0.0012
Volume Resistivity	ohm-cm	ASTM D257	1.0x10 <sup>17</sup>
<b>Other</b>			
Specific Gravity	—	ASTM D792	1.27
Water Absorption @24 hours	%	ASTM D570	0.25

Applications Include:

- Electrical Connectors / Fittings Burn in Test Sockets
- Radomes
- Aircraft Seating Components — Legs, Seat Pans, Trays and Video Arms
- Plenum devices
- Fuel cell components

Manufacturing Capabilities:



Colors:

Light Amber

In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

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